Figure 1

Encoded probing of single molecules

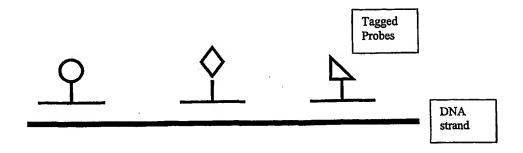


Figure 2

Complementary strand synthesis by ligation

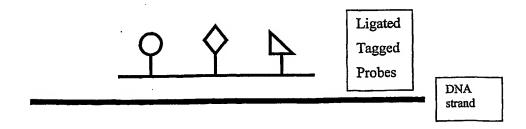


Figure 3

## Gap Fill Ligation

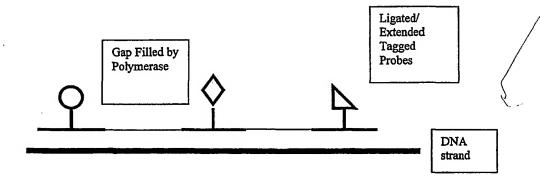


Figure 4

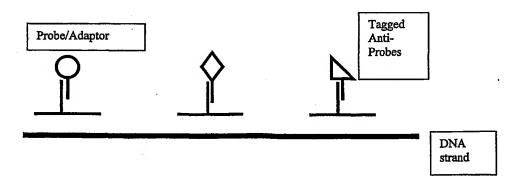
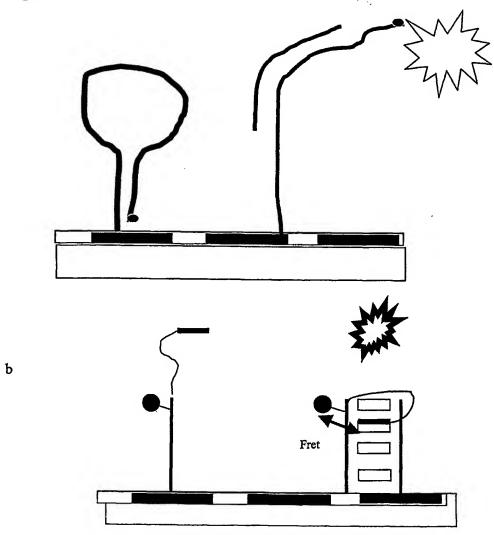
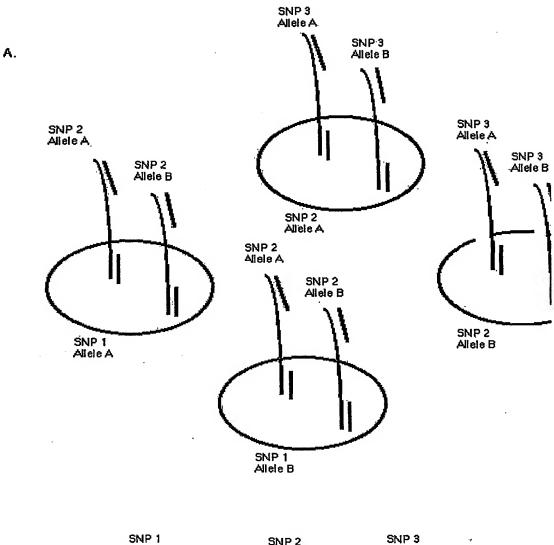


Figure 5a



Each element of the biosensor array contains distinct sngle molecule probe sequences (Asterisks), eg to detect different pathogens

Figure 6



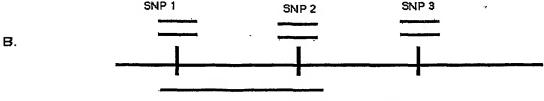


Figure 7

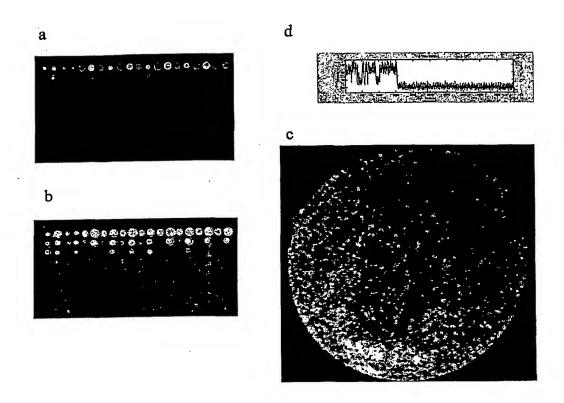


Figure 8

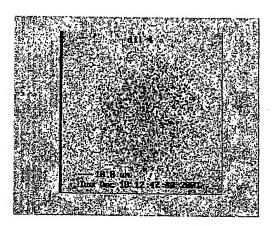


Figure 9

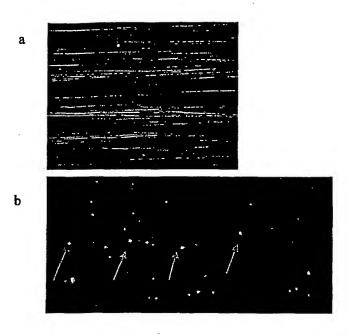


Figure 10A

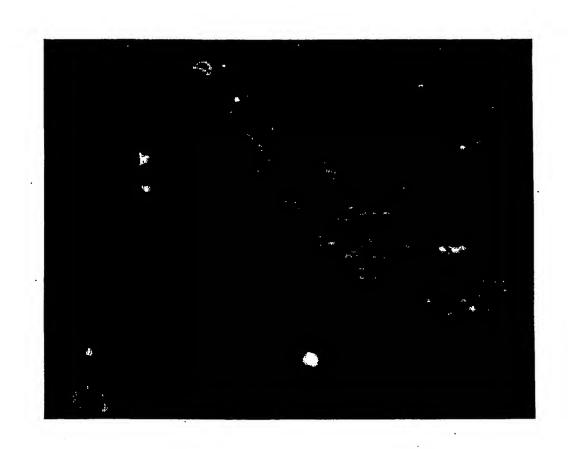


Figure 10B

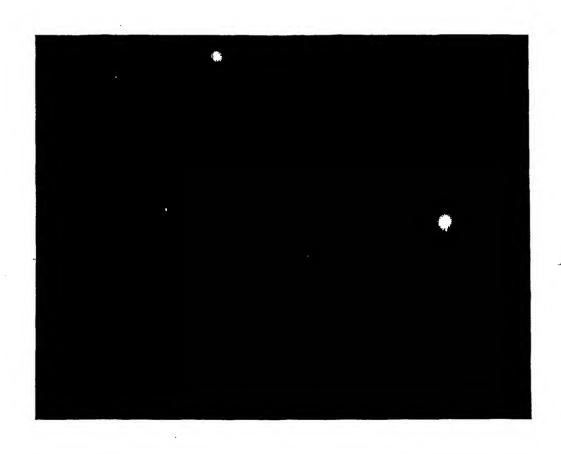


Figure 10C

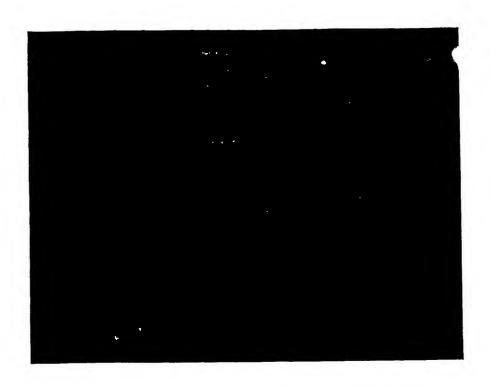


Figure 10D

